Amendments to the Specification

Please replace paragraph [0008] with the following amended paragraph:

[0008] In situations where only two antennas are used, the two antennas may be separated by a distance of ~~□/2~~ $\lambda/2$, wherein ~~'□~~ λ represents the wavelength corresponding to frequency of operation of the communication system. Accordingly, there is a general need to select one among multiple antennas when receiving a packet using wireless technologies.

Please replace paragraph [0042] with the following amended paragraph:

[0042] BMF filter 360 generates a correlation value corresponding to each data bit received. In the embodiment of Figure 3, the correlation value represents a count indicating the number of matching ~~bitsthe~~ bits less the number of non-matching bits for the code corresponding to a data bit of 1. A correlation value of +11 indicates that a data bit of 1 is received, and a correlation value of -11 indicates that a data bit of 0 is received.

Please replace paragraph [0045] with the following amended paragraph:

[0045] Slicer 370 generates data bits from the correlation values received from BMF 360. In an embodiment, a value of 1 is deemed to be present for a positive correlation value (+1 through +11) and a 0 is deemed to be present for a negative correlation value (-1 to -11). The digital bits thus generated are transferred on path 179 to destination block 190. While slicer 370 is described as recovering a single bit each time, it may be appreciated that the received signal may ~~containcontaining~~ contain multiple bits, and implementation of such extensions will be apparent to one skilled in the relevant arts by reading the disclosure provided herein.

Please replace paragraph [0055] with the following amended paragraph:

[0055] The sum of the first two terms in the RHS of Equation (8) is a Gaussian random variable having a distribution of $N\left((\rho_i/1+\rho_i) N^2P, 2N^3P^2 (\rho_i/ (1+\rho_i)^2)\right)$ and the third term is (chi-squared) X^2 distributed with mean and standard deviation of the X^2 process being ~~NP/1+ pi~~ $NP/1+ \rho_i$. The ratio of the variances of the Gaussian process to the X^2 process is $2N\rho$, wherein $N = 11$ for the barker sequence. It implies that at reasonably high SNRs (say $\rho > -3$db), X^2 noise process may be neglected. The X^2 process may be approximated by its mean and thus, the correlation power, given the SNR, is distributed as $N\left((N\rho_I+1/1+\rho_i) NP, -2N^3P^2 (\rho_i/ (1+\rho_i)^2)\right)$.

Please replace paragraph [0062] with the following amended paragraph:

[0062] For ~~□$_1$>□$_2$~~ $\underline{\rho_1 > \rho_2}$, we need $({}^{G2}/_{G1}) > (\sigma^{21}/\sigma_{22})$. From Equation (1), this is true if $({}^{G2}/_{G1}) > K$ and false if $({}^{G2}/_{G1}) < ({}^{1}/_{K})$. If $({}^{G2}/_{G1}) > K$, and $\rho_1 > \rho_2$ select antenna 150, and if $({}^{G2}/_{G1}) < {}^{1}/_{K}$, and $\rho_1 < \rho_2$ select antenna 160. If $({}^{1}/_{K}) =< ({}^{G2}/_{G1}) <= K$, then from the fact that ~~a<□$^2_1$, □$^2_2$<b~~ $\underline{a < \sigma^2_1, \sigma^2_2 < b}$, the boundary conditions corresponding to ρ_1 and ρ_2 for LHS may be represented by Equations (13), (14), (15) and (16) shown in Figure 4.

Please replace paragraph [0067] with the following amended paragraph:

[0067] Assuming for illustration that K = 6dB and ~~and~~ that T1 = 1dB and T2 = -7dB. For g2/g1 = +1dB, we get m1 (1) = 13.75, m2 (1) = 1:5, c1 (1) = 441 and c2 (1) = 47. From this it may be observed that only for very low values of g, do we get a range where antenna 160 is selected. As the value of g increases, the range decreases and antenna 150 is selected. This is because low g corresponds to a higher SNR (all possible values of SNR are "high") and the correlations are expected to be around μ_∞.

Please replace paragraph [0071] with the following amended paragraph:

[0071] Figure 5 contains lines ~~501-523~~ <u>505-580</u> illustrating the manner in which selector block 390 maybe implemented to select either antenna 150 or 160 depending on the values of two measured parameters. The values of AGC1, AGC2, C1, and C2 noted above may be provided to selector block 390. The mean (mu) of the Gaussian distribution of correlation values may be determined as equaling N2 x P (wherein N=11 if a 11-bit Barker sequence is used as a preamble, and P is the power output of amplifier 320). The values of T1, T2, m1, m2, c1, and c2 may be determined/estimated and provided (stored) to selector block 390 prior to selection of antenna.

Please replace paragraph [0072] with the following amended paragraph:

[0072] Selector block 390 may operate according to the instructions in lines ~~501-523~~ <u>505-580</u> to select one of the two antennas. Each instruction is self-explanatory , and is not repeated here in the interest of conciseness. However, broadly, it may be observed that selector block 390 operates according to the following four rules.